Question Booklet & Answer Key

For Recruitment Test Held on

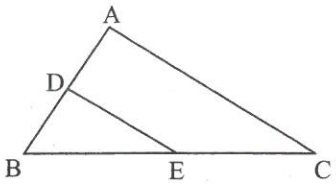
22-12-2019 (EVENING)

[(Post : Clerk / Steno-Typist (English)]

PAPER - II

1. In what time Rs. 64,000/- will fetch an interest of Rs. 4,921/- if invested @ 5% p.a. and the interest is compounded half yearly.
   A) 3/2 years B) 2 years C) 3 years D) none of these

2. In the following figure D and E are mid points of the sides AB and BC of a triangle ABC if area of ΔABC is 100 square units then area of ΔBDE is.
   A) 10 square units B) 15 square units
   C) 25 square units D) 75 square units



3. From a rope 30 meters long a person cuts off as many pieces as many possible, each 3¼ meters long. What fraction of the rope will be left?
   A) 7/13 B) 3/4 C) 8/13 D) 1/40

4. If 4/7 of a piece of work is completed in 7/4 days, in how many days can rest of the work be completed?
   A) 21 B) 3/7 C) 7/3 D) 21/16

5. Cube of any positive integer can't be of the form
   A) $9m + 5$ B) $9m + 1$ C) $9m + 8$ D) $9m$

6. The digit in the unit's place of the number $3^{66} - 5^{20} - 4^3$ is
   A) 3 B) 0 C) 4 D) 5

7. Four Lories carrying 4 tons each move 128 tons in 8 days. In how many days will six Lories, carrying 3 tons each, move 540 tons?
   A) 24 days B) 30 days C) 26 days D) none of these

8. What will be the remainder if $(x^{97} - 1)$ is divided by $x + 1$.
   A) –2 B) 96 C) 0 D) 2

9. What is the greatest possible speed at which a man can walk 52 km and 91 km in an exact number of minutes?
   A) 17 m/min B) 7 m/min C) 13 m/min D) 26 m/min

10. The greatest number which when divides 989 & 1327 leaves remainders 5 & 7 respectively is
    A) 16 B) 18 C) 36 D) 24

11. Walking at 4 *km/h*, a person reaches his office 5 minutes late. If he walks at 5 *km/h*, he will be 4 minutes early. Find distance of his office from his residence.
    A) 5 *km* B) 3 *km* C) 4 *km* D) 2 *km*

12. Bhawana decided to donate 12 % of her salary to an orphanage. On the day of donation she changed her mind and donated Rs. 2400, which was 125% of what she decided earlier. How much is the Bhawana's salary.
    A) Rs. 16000 B) Rs. 14750 C) Rs. 18000 D) can't be determined

13. The measure of each interior angle of a regular 12 sided polygon is…
    A) 50^0 B) 140^0 C) 160^0 D) 150^0

14. If α and β are zeros of $x^2 - 6x + 4 = 0$ then value of $\alpha^3\beta^2 + \beta^3\alpha^2$ is
    A) 48 B) 96 C) 24 D) none of these

15. An electronic clock makes a beep after every 58 seconds. Another clock makes a beep after every 60 seconds. They beeped together at 11:23 am. The time when they will beep together again, is
A) 11:28 am B) 11:39 am C) 11:52 am D) will not beep together

16. Ram and Sham can do a work in 6 and 12 days respectively. Ram starts the work and Sham joins after 3 days to finish the work together. For how many days Sham worked?
A) 6 days B) 5 days C) 2 days D) none of these

17. Mohan and Sohan can together do a job in 12 days. Sohan alone can do it in 28 days. In how many days can Mohan finish this work?
A) 21 days B) 16 days C) 12 days D) 28 days

18. A reduction of 25% in the price of sugar enables the person to get 10 Kg more on a purchase of Rs. 600. What is the reduced rate of sugar?
A) Rs. 25/Kg B) Rs. 45/Kg C) Rs. 35/Kg D) Rs. 15/Kg

19. A sum of Rs. 200 is lent to be paid back in 3 equal monthly installments of Rs 100 each. Find the rate of interest per annum.
A) 200% B) 400% C) 300% D) none of these

20. Suppose 2 tables and 3 chairs together cost Rs. 2000 whereas 3 tables and 2 chairs together cost Rs. 2500. Then total cost of 1 table and 5 chairs will be
A) 1700 B) 2500 C) 3500 D) none of these

21. The 10^{th} term of an A.P. is 41 and 18^{th} term is 73, find third term of the A.P.
A) 15 B) 13 C) 20 D) none of these

22. A vessel, full of water, weighs 16.5 Kg. When the vessel is 1/4 full, it weighs 5.25 Kg. The weight of the empty vessel (in Kg) is
A) 1.125 B) 4.5 C) 1.5 D) 3

23. A boy on being asked 13/14 of a certain fraction had made the mistake of dividing the fraction by 13/14 and so got an answer that exceeds the correct answer by 3/65. The correct answer is.
A) 14/45 B) 12/65 C) 13/45 D) 7/13

24. Two cars travel at 30 and 45 km/h. If one takes 2 ½ hours less than other to complete a journey then the distance covered during the journey is
A) 250 km B) 200 km C) 260 km D) none of these

25. A man rows upstream 20km and downstream 30km taking 5 hours each. What is the speed of the current?
A) 1 km/hour B) 6 km/hour C) 2 km/hour D) 4 km/hour

26. In a factory, the production of cement rose to 2,420 tons from 2000 tons in two years. The rate of growth per annum is.
A) 15% B) 10% C) 20% D) 30%

27. Ratio of sum of n terms of two A.P. is $(3n + 4) : (5n + 6)$, then ratio of their 5^{th} terms is
A) 51 : 31 B) 21 : 51 C) 31 : 21 D) 31 : 51

28. Length of a minute hand of a wall clock is 7 cm. The area swept by it in 25 minutes is
A) 61.47 cm^2 B) 71.74 cm^2 C) 64. 17 cm^2 D) 65.97 cm^2

29. Maximum value of $(2 \sin\theta + 3 \cos\theta)$ is
A) $\sqrt{12}$ B) $\sqrt{15}$ C) $\sqrt{14}$ D) $\sqrt{13}$

30. If θ is an acute angle and $\tan\theta + \cot\theta = 2$, then value of $\tan^7\theta + \cot^7\theta$ is
A) 7 B) 2 C) 1 D) $100\frac{2}{3}\ m^3$

31. 1521 orange trees are planted in a garden in such a manner that there are as many trees in a row as many there are rows in the garden. Find the number of trees in each row.
A) 39 B) 71 C) 61 D) 49

32. Find the smallest number by which 6125 must be divided, so that it becomes a perfect square. Also find the square root of the perfect square so obtained.
A) 5, 45 B) 5, 35 C) 25, 25 D) none of these

33. Find the value of p for which the points $(-5, 1)$, $(1, p)$ and $(4, -2)$ are collinear.
A) -3 B) -2 C) 0 D) -1

34. A girl of height 90 cm is walking away from the base of a lamp-post at a speed of 1.2 m/s. If the lamp is 3.6 m above the ground, find the length of her shadow after 4 seconds.
A) 1.6 m B) 1 m C) 2.6 m D) 3 m

35. Three pipes A, B and C fills up a tank with chemicals Q, R and S respectively. They can fill up the tank in 30 min., 20 min. and 10 min. respectively. If all the three pipes are opened for 5 minutes, then proportion of chemical 'R' in the tank will be
A) 6/11 B) 3/11 C) 2/11 D) none of these

36. Water in a rectangular reservoir having a base 80 m × 60 m is 6.5 m deep. In what time can the water be emptied by a pipe of which the cross-section is a square of side 20 cm, if the water runs through the pipe at the rate of 15 km/h.
A) 65 hrs B) 26 hrs C) 52 hrs D) 42 hrs

37. A cone of height 14 cms and base radius 3 cms is made from a rectangular block of wood of dimensions 15 cms × 6 cms × 6 cms. Find the percentage of wood wasted.
A) 60.5% B) 50% C) 24.4% D) 75.6%

38. A boat travels 30km up stream in the same amount of time it takes to travel 60km downstream in the same river. If the speed of the river is 4km per hr., find the speed of the boat in still water.
A) 12 Km/hr B) 23 Km/hr C) 5.15 Km/hr D) 8 Km/hr.

39. Two trains of lengths 190 m and 210 m respectively, are running in opposite directions on parallel tracks. If their speeds are 40 km/h and 32 km/h respectively, in what time will they cross each other?
A) 30 seconds B) 20 seconds C) 40 seconds D) 10 seconds

40. At what time between 3 and 4 o'clock, the hands of a clock coincide?
A) 15 min. past 3 B) 17 min. past 3 C) $16\frac{4}{11}$ min. past 3 D) 14 min. past 3

41. A graph of a cumulative frequency distribution is called:
A) Frequency curve B) Frequency polygon C) Histogram D) Ogive

42. Which measure(s) of Central Tendency could yield more than one representative value(s)?
A) Mean B) Median C) Mode D) Median & Mode

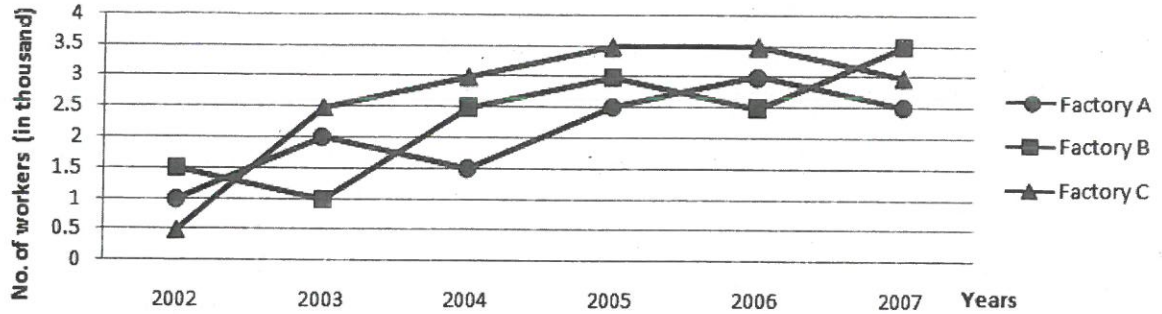
43. For which of the average (s), class intervals must be equal
A) Median B) Mode C) Mean D) Median & Mode

44. Which measure of Central Tendency is most appropriate for studying phenomenon like intelligence and honesty?
A) Mean B) Median C) Mode D) All

45. Most appropriate average to determine average size of readymade garments is:
A) Arithmetic Mean B) Median C) Mode D) None of the above

46. Which measure of Central Tendency is least affected by extreme values?
A) Mean B) Median C) Mode D) None

Directions: (Q. Nos. 47-49): Study the following graph carefully and answer the questions:
The following line graph shows the number of workers (in thousand) in three Factories A, B and C over the years from 2002 to 2007.

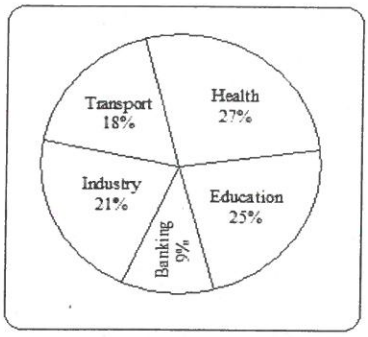


47. How many times the total number of workers in all the three Factories A, B and C together was exactly equal among the given years?
A) 2 B) 5 C) 4 D) 3

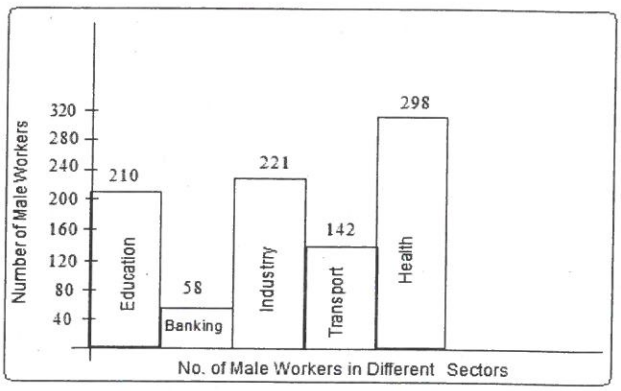
48. Total number of workers in Factory B and Factory C together in the year 2004 was approximately what percent of the total number of workers in Factory B and Factory C together in the year 2007?
A) 85 B) 80 C) 75 D) 184

49. What was the approximate average number of workers in Factory A over all the years together?
A) 1990 B) 2085 C) 2300 D) 1800

Directions (Q.Nos. 50-53): Study the following pie-chart showing the percent distribution of 1600 workers of different sectors and table/graph showing the number of male workers working in different sectors and answer the questions given below:



%age of 1600 workers in different sectors



50. The number of female workers in Banking is approximately what percent of the number of workers in Transport and Health together:
A) 4 B) 12 C) 24 D) 34

51. What is the respective ratio between the number of female workers in Transport and the number of male workers in the same sector:
A) 73:71 B) 27:73 C) 28:73 D) 71:73

52. What is the total number of female workers in Education and Industry together?
A) 483 B) 384 C) 382 D) 305

53. What is the angle of pie diagram showing the percentage of workers in Health and Transport sector together?
A) 162^0 B) 45^0 C) 135^0 D) 150^0

54. The mean of the series containing 100 items having class intervals as 10-20, 20-30, --------, is 45. If items 35 & 15 are misread as 53 & 51, then the correct mean shall be:
A) 44.73 B) 44.46 C) 44.4 D) 45.6

55. The sum of deviations of a certain number of observations measured from 4 is 72 and the sum of deviation of observations from 7 is –3. The number of observations and their mean is:
A) 25, 6.88 B) 11, 5 C) 18, 5.6 D) None of these

56. If sum of the deviations from median is zero, then:
A) Mean > Median B) Mean = Median C) Mean < Median D) None of the above

57. A student appeared in three tests of the value of 20, 50 and 30 marks respectively. He obtained 75% marks in first test and 60% marks in the second test. What would be his percentage of marks in the third test if his aggregate is 69%?
A) 60% B) 65% C) 75% D) 80%

58. If the mean of numbers 26, x, 40, 76 & 102 is 60, what is the mean of 46, 60, 96, 122 and x?
A) 56 B) 60 C) 76 D) 80

59. The mean age of a group of men & women is 30 years. If the mean age of men is 32 years and that of women is 27 years, then the percentage of men & women in that order in the group is:
A) 60, 40 B) 70, 30 C) 40, 60 D) 64, 36

60. In a batch of 15 students, 5 failed in the test. If the marks of 10 students who passed were 9, 6, 7, 8, 8, 9, 6, 5, 4, 7, then the median marks of all the students is:
A) 8.5 B) 6 C) 7 D) 6.5

61. Calculate median from the following data:

X	5-15	15-25	25-35	35-45	45-55	55-65	65-75	75-85
Cumulative Frequency	-	-	-	-	42	75	87	96

A) 56.72 B) 56.77 C) 56.82 D) 56.87

62. The five kids in a family on an average have Rs.25 with them. While four of them have Rs.20, Rs.30, Rs.15 and Rs.30 respectively. Mrs. And Mr. X visit the family and on the day of their departure Mrs. X announced that each of the kid will be given the money equal to what the kid already have. In contrast Mr. X announced that each kid would be given a fixed amount equivalent to that of median value. Now what will be the average money with the five kids?
A) Rs.55 B) Rs.80 C) Rs.95 D) None of the above

63. The modal marks of 94 students are 54. Ten students got marks between 0-20, thirty students between 40-60 and fourteen students between 80-100. Find out the number of students getting marks between 20-40 and 60-80 if the maximum marks of the test were 100.
A) 24, 16 B) 34, 6 C) 16, 24 D) 6, 34

64. If mode=40 and median=30, the most likely value of arithmetic mean will be
A) 35 B) 15 C) 45 D) 25

65. In a school of 150 students only 10 students can play all the three games, viz., cricket, hockey and football, otherwise 60 students play cricket, 50 play football and 40 play hockey. While 20 students can play both hockey and football, 30 can play cricket and football and 20 can play hockey and cricket. A visitor to the school picks up one student at random, What is the probability that the selected student would at the most be playing one game?
A) 4/15 B) 6/15 C) 10/15 D) Data not adequate

66. A box contains 3 Red & 7 White balls. One ball is drawn at random and in its place a ball of other colour is put in the box. Now one ball is drawn at random from the box. Find the probability that it is red.
A) 0.06 B) 0.28 C) 0.34 D) 0.0168

67. A biased dice is tossed once. The dice is such that an even number is twice more probable than an odd number. Then, the probability of getting a number less than 6 is:
A) 1/9 B) 7/9 C) 8/9 D) 3/9

68. Let A & B be two possible outcomes of an experiment and
P(A) = 0.4 P(AUB) = 0.7 & P(B) = p
For what value of p are A and B independent events?
A) 0.5 B) 0.3 C) 0.12 D) None of above

69. X, Y, Z are bidding for a contract and only one of them can win the contract. It is believed that X has half the chance that Y has. Y, in turn, is 4/5th as likely as Z to win the contract. The probability for Z to win the contract is:
A) 1/2 B) 1/5 C) 5/11 D) 9/10

70. In a family of 4 children what is the probability that all will be of same sex?
A) 1/4 B) 1/8 C) 1/2 D) 1/16

71. In the following question, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
2Z5, 7Y7, 14X9, 23W11, 34V13, ?
A) 27U24 B) 45U15 C) 47U15 D) 47V14

Directions: (Q. 72 & 73): A cube of 4cm has been painted on its surfaces in such a way that two opposite surfaces have been painted blue and two adjacent surfaces have been painted red. Two remaining surfaces have been left unpainted. Now, the cube is cut into smaller cubes of side 1cm each.

72. How many cubes will have none of the sides painted?
A) 18 B) 16 C) 22 D) 8

73 How many cubes will have three surfaces coloured?
A) 3 B) 4 C) 2 D) 16

74. The following question consist of two words each that have a certain relationship to each other, followed by four lettered pairs of words. Select the lettered pair that has the same relationship as the original pair of words.
Visitor : Welcome
A) Beggar : Hungry B) Worship : God C) Criminal : Prosecute D) Warrior : Conquer

75. In this question, four groups of letters are given. One of these groups is different from the other three. Find the odd one.
A) MEWGN B) PBQTX C) DRYSN D) CGHKV

76. In this problem, out of four figures marked (A), (B), (C) and (D), three are similar in a certain manner. However, one figure is not like the other three. Choose the figure which is different from the rest.

(A) (B) (C) (D)

77. If, 'FIRE' is coded for a secret message to be Tele printed as 'E H Q D', how is the reply 'DONE' to be relayed ?
A) D-M-O-E B) C-N-M-D C) D-L-N-C D) D-N-P-E

78. In a certain code 'Hit Bit Mit' means 'Git Rit Nit', 'Sit Pit Mit' means 'Lit Git Tit' and 'Fit Zit Pit' means 'Dit Vit Tit'. What does 'Sit' stand for in that code language ?
A) Vit B) Dit C) Rit D) Lit

Directions: (Q. 79 to 81) : Read the information given below to answer these questions.

Rani and Shreshtha are a married couple having two daughters, Medha and Deepti. Deepti is married to Anurag who is the son of Garima and Tarun. Nidhi is the daughter of Anurag. Komal, who is Anurag's sister, is married to Harshit and has two sons, Aman and Prem. Prem is the grandson of Garima and Tarun.

79. What is the relationship between Aman and Nidhi?
A) Cousins B) Husband-Wife C) Father-Daughter D) Uncle-Niece

80. How is Komal related to Deepti ?
A) Aunt B) Sister-in-law C) Sister D) None of these

81. Which of the following is true?
A) Tarun is Deepti's maternal uncle. B) Aman is the son of Medha.
C) Garima is Harshit's mother-in-law D) Nidhi is the cousin of Komal

82. In a class of 60, where number of girls are twice that of boys, Kamal ranked seventeenth from the top, if there are 9 girls before Kamal, how many boys are after him in rank?
A) 3 B) 12 C) 7 D) 23

Directions: (Q No. 83-84):Study the following information and answer the questions given below:

(i) Kailash, Govind and Harinder are intelligent.
(ii) Kailash, Rajesh and Jitendra are hard-working.
(iii) Rajesh, Harinder and Jitendra are honest.
(iv) Kailash, Govind and Jitendra are ambitious.

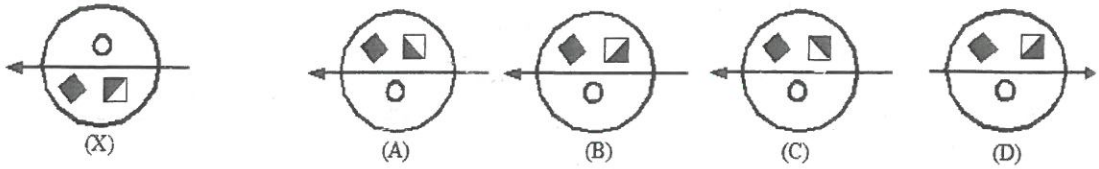
83. Which of the following persons is neither hard-working nor ambitious?
A) Kailash B) Govind C) Harinder D) Rajesh

84. Which of the following persons is neither honest nor hard-working but is ambitious?
A) Kailash B) Govind C) Rajesh D) Harinder

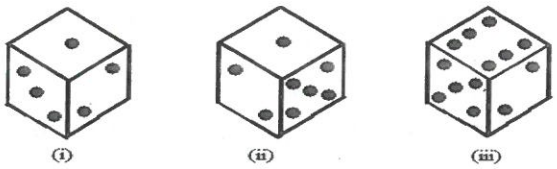
85. Among P, Q, R, S, T and U, P is taller than R and S, but not shorter than T and U; and Q is taller than R, S, T and U but not as tall as P. Who amongst them is the tallest?
A) Data inadequate B) T C) Q D) P

86. Shyam, Neena, Sudha, Nikha and Rupesh are sitting around a circle facing towards the centre. Sudha is between Shayam and Rupesh. Neena is to the immediate right of Shyam. Who is to the immediate right of Neena ?
A) Rupesh B) Nikha C) Shyam D) Sudha

87. Choose the correct water-image of the Fig. (X) from amongst the four alternatives (A), (B), (C) and (D) given along with it.

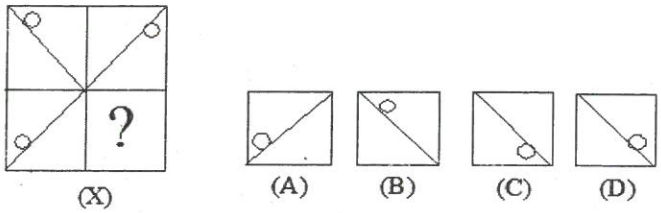


88. Below are depicted the three different positions of a dice. Find the number of dots on the face opposite to the face with one dot.



A) 2 B) 3 C) 4 D) 6

89. In this question, select a figure from amongst the four alternatives, which when placed in the blank space of fig. (X) would complete the pattern.



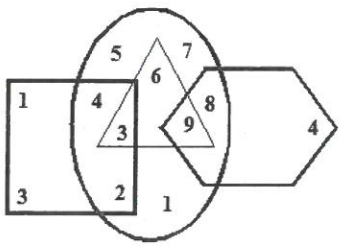
90. Laveena left her shop for the bus stop 20 min earlier than usual. It takes 10 min to reach the stop. She reached the stop at 10:40 a.m. What time does she leave shop for the bus stop usually?

A) 9:00 am B) 10:50 am C) 10:30 am D) 8:45 am

91. I am facing east. I turn 100^0 in the clockwise direction and then 145^0 in the anti-clockwise direction. Which direction am I facing now ?

A) East B) North-east C) North D) South-west

Directions: (Q. Nos. 92 & 93) Study the figure given below & answer the questions that follow :



92. What is the sum of the numbers which belong to two figures only ?

A) 6 B) 15 C) 20 D) None of these

93. What is the product of the numbers which belong to three figures only ?

A) 27 B) 162 C) 648 D) None of these

94. Two buses start from the opposite points of a main road, 150 kms apart. The first bus runs for 25 kms and takes a right turn and then runs for 15 kms. It then turns left and runs for another 25 kms. and takes the direction back to reach the main road. In the meantime, due to a minor breakdown, the other bus has run only 35 kms along the main road. What would be the distance between the two buses at this point ?
A) 65 kms B) 75 kms C) 80 kms D) 85 kms

95. In a town, 65% people watched the news on television, 40% read a newspaper and 25% read a newspaper and watched the news on television also. What percent of the people neither watched the news on television nor read a newspaper ?
A) 5 B) 10 C) 15 D) 20

96. If the positions of the third and tenth letters of the word DOCUMENTATION are interchanged, and likewise the positions of the fourth and seventh letters, the second and sixth letters, are also interchanged, which of the following will be eleventh letter from the right end ?
A) C B) I C) T D) U

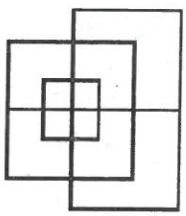
97. Study the following table and choose the alternative which can best replace the sign of interrogation (?)

3	8	10	2	?	1
6	56	90	2	20	0

A) 0 B) 3 C) 5 D) 7

98 How many 7s immediately preceded by 6 but not immediately followed by 4 are there in the following series ?
7 4 2 7 6 4 3 6 7 5 3 5 7 8 4 3 7 6 7 2 4 0 6 7 4 3
A) One B) Two C) Four D) Six

99. Find the minimum number of straight lines required to make the figure given below:



A) 13 B) 15 C) 17 D) 19

100. There are twenty people working in an office. The first group of five works between 8.00 A.M. and 2.00 P.M. The second group of ten works between 10.00 A.M. and 4.00 P.M. And the third group of five works between 12 noon and 6.00 P.M. There are three computers in the office which all the employees frequently use. During which of the following hours the computers are likely to be used most ?
A) 10.00 A.M. — 12 noon B) 12 noon — 2.00 P.M.
C) 1.00 P.M. — 3.00 P.M. D) 2.00 P.M. — 4.00 P.M.

KEY --- PAPER – II (22-12-2019)

Q.No.	Ans	Q.No.	Ans	Q.No.	Ans	Q.No.	Ans
1	A	26	B	51	A	76	B
2	C	27	D	52	D	77	B
3	D	28	C	53	A	78	D
4	D	29	D	54	C	79	A
5	A	30	C	55	A	80	B
6	B	31	A	56	B	81	C
7	B	32	B	57	D	82	B
8	A	33	D	58	C	83	C
9	C	34	A	59	A	84	B
10	D	35	B	60	B	85	D
11	B	36	C	61	C	86	B
12	A	37	D	62	B	87	A
13	D	38	A	63	C	88	D
14	B	39	B	64	D	89	C
15	C	40	C	65	C	90	B
16	C	41	D	66	C	91	B
17	A	42	C	67	B	92	C
18	D	43	B	68	A	93	A
19	D	44	B	69	C	94	A
20	A	45	C	70	B	95	D
21	B	46	B	71	C	96	C
22	C	47	D	72	A	97	C
23	C	48	A	73	C	98	B
24	D	49	B	74	C	99	A
25	A	50	B	75	A	100	B